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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,528	04/07/2006	Alwin Hermann Schwitzer	1-17013	8981
1678 7590 .05/21/2007 MARSHALL & MELHORN FOUR SEAGATE, EIGHT FLOOR TOLEDO, OH 43604			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/533,528

Applicant(s)

SCHWITZER ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/4/06</u> .   | 6) <input type="checkbox"/> Other: ____                           |

1. Claims 18-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what is intended by “branched graft polyamide” of the instant claims. It is unclear if some additional branching is required by “branched” and if so where the branching is required and how much further branching is required in addition to the grafts or if “branched” is merely redundant to “graft”. The scope of this claim language is therefore unclear.

B. The instantly claimed component b.1) requires “the molecular weight of the basic structure unit being between a 600 and 9000 g/mol”. It is unclear if this molecular weight related to a polymeric species is intended to be an average molecular weight known to the skilled artisan in polymers, if so, what type of average is required, or is requiring that all of the recited units have to be within the range of 600-9000 g/mol. In the latter instance it is unclear if a polydispersity of one or some other value is intended.

C. It is unclear what is intended by “polyamine acid chains” of component b.1). This moiety is not described in the instant specification adequately. The document referenced in the specification as describing these compounds recites a polyamino acid. The scope of the two terms would appear to differ greatly since the claimed term is not defined in the instant application.

D. The instant claims recite amounts in “parts”. It is unclear if these “parts” are by weight, volume, or some other basis.

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E. In claims 22 and 27, “could be replaced” fails to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if replacement is required or not and if replacement is required, in what circumstances it “could be” replaced.

F. It is unclear if claim 23 is intended to change the scope of component b to those graft polyamides which are derived from PA6, PA11, PA12 and have more than 3 arms as broadly required by claim 23 or the graft polyamides which have these properties and those of claim 18. As claim 23 is written, it seems to increase the scope of component b.

G. It is unclear in claim 24 if “above the melting temperature” refers to the melting temperature of the polyamide molding material or the graft polyamide b.

H. It is unclear if claim 26 is requiring only that the polyamides b have the same polydispersity as the polyamide a or if the Mn and Mw of polyamides a and b must be the same.

I. It is unclear what is intended by “and or” of claim 28. This is improper Markush language if a Markush group is intended. It is not closed language. Therefore, it is unclear what other components may be present if “and” is used.

J. It is unclear what is intended by the abbreviations of claims 27 and 28.

K. It is unclear what is intended by the language of claim 29, particularly “are selected from....whiskers and further reinforcing materials which are common for polyamide or mixtures thereof.” It is unclear if the Markush group ends with the group following “and further reinforcing materials” due to the recitations of “and” prior to “or”. If so, it is unclear what other components are allowed in the open Markush group. This is improper Markush language. See

MPEP 3.05(h) Alternative Limitations

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I. MARKUSH GROUPS. It is unclear if the use of whiskers is required in combination with “further reinforcing materials which are common for polyamide” and “or mixtures thereof” is the last thing in the Markush group.

L. It is unclear what is required of the Markush group of claim 31 due to the use of “and” twice. It is therefore unclear which thing is the last member of the Markush group and what other things are encompassed by the open Markush language.

M. It is unclear what is intended by “GIT” and “WIT” of claim 33.

N. It is unclear what is intended by “inherent” of claim 25.

O. It is unclear what is required of claim 31 because it depends from cancelled claim 13.

2. Claims 18-34 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed “polyamine acids”, does not reasonably provide enablement for the entire scope of “polyamine acids”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. It is unclear what is intended to be encompassed by the “polyamide acid chains” of the claimed component b.1. This term is not adequately described in the instant specification such that its scope can be determined. References to EP 345648 A2 and EP 409115 are noted.

However, these documents are not incorporated by reference as required by MPEP 608.01(p) I.

#### INCORPORATION BY REFERENCE

>37 CFR 1.57. Incorporation by reference. The above discussed claimed material is “essential material” required to determine the scope of and understand the claimed invention. 37 CFR 1.57. Incorporation by reference clearly excludes incorporating essential material by

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reference the referenced documents though the applicant's language is not even an incorporation by reference. For these reasons, the applicant's specification fails to comply with the enablement requirement for the entire scope of the instant claims.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6211266 Weber et al. in view of EP 409115 A2 Schmid et al. (translation provided and referenced) and EP 345648 A2 Schmid et al. (translation provided and referenced).

Weber et al. discloses polyamide compositions containing partly crystalline polyamide A which falls within the scope of the instantly claimed component A)a) and its amount, C which encompasses the instantly claimed component A)b.1) and its amount, components D and E which fall within the scope of the instantly claimed components B and C and their amounts, component B which encompasses the instantly claimed component A)b.2 and its amount. See the abstract and the remainder of the disclosure of Weber. All polymers have some amorphous character necessarily and therefore the portion of the polyamides of Weber falling within the scope of the amounts of the instantly claimed component A)c) fall within the scope of the amorphous polyamides A)c) of the instant claims.

Weber does not disclose the specific polymers b) of the instant claims. The instant specification states that the instantly claimed polymers b.1 and b.2 are those of the cited Schmid references.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed mixtures of ingredients and amounts thereof in the compositions of Weber including the instantly claimed components b.1 and/or b.2 in the instantly claimed amounts in the compositions of Weber because, as stated above, Weber encompasses such polyamides in their compositions, and the benefits of these graft polyamides described in the above cited Schmid et al. references would have been expected in the compositions of Weber containing these graft polyamides. See Schmid (EP 345648 A2), page 4 in its entirety, page 10, lines 20-23 which states that these polyamides may be used in polymer blends and will give the benefits described to these blends and the other graft polyamide properties described by Schmid would also be expected in such polymer blends. See the entire document, particularly page 16, lines 1-14 and the figures. See Schmid (EP 409115 A2), page 1, lines 1-2 and 21-22 of text after the "Applicant" line, page 2 in its entirety, page 4, lines 10-22, table 2 of page 5, and the remainder of the document. The benefits described for these graft polyamides by Schmid would also be expected in such polymer blends of Weber. Given the similarities of the compositions of the instant claims and those of Weber, it is not seen that the compositions of Weber would not necessarily have the broadly claimed properties of the instant claims with or without the above discussed modifications.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No.

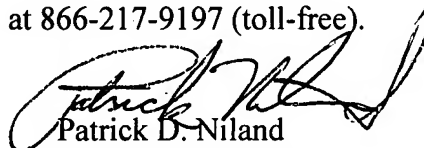
6211266 Weber et al..

Weber discloses making articles by injection molding at column 1, lines 21-25 which falls within the scope of the instant claim 33.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patrick D. Niland  
Primary Examiner  
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